

Roscoe B. Jackson Memorial Laboratory

BAR HARBOR, MAINE

July 3, 1957

Cable Address
"JAXLAB"

Dr. Joshua Lederberg
Genetics Building
University of Wisconsin
Madison 6, Wisconsin

Dear Joshua:

I have received the notice about the return of the Symposium of the original dates April 7-10. I am a little disappointed that the Gatlinburg and Madison meetings are now requiring two separate trips as I am not fond of extensive travelling and would prefer to take both meetings in one trip but so far as I can foresee now I shall still plan to be in Madison for the Symposium. The program is impressive and I am sure it would be both profitable and pleasant to attend. Tibby Russell brought down a recent letter to her and we had an interesting discussion of the last paragraph. She has left it to me to answer this.

There have been crosses made which would be pertinent to the question of whether or not you can get in mice the Owen effect of the induced tolerance in offspring to the antigens of the mother. As a matter of fact I have going now several backcrosses employing histocompatibility genes and linked markers and have made other similar crosses in the past. Any adaptation to the mothers antigens should of course show up as some form of lowered resistance of the presumably recent genotypes. We are as a matter of fact getting a deficiency of resistant animals in some instances although in others there is a good 1:1 ratio. It had not occurred to me prior to seeing your recent letter that the deficiencies might be explained in this particular way and I shall now examine all the crosses with a good deal of interest from this point of view. However there is a common occurrence for transplantable tumors to cross in a certain percent of resistant animals particularly when the resistance is due to loci other than the "strong" H-2 locus. As a matter of fact in dealing with H-1 and H-3 we regularly preimmunize with normal donor tissue in order for the resistance to be manifest to any satisfactory degree. I suspect that most of these positives are what we call false positives, resulting from this tendency of tumor to ~~cross~~ despite some degree of resistance. The critical point would of course be a different instance of positives in reciprocal crosses. In nearly all cases at present I believe our heterozygotes are female so that we cannot meet this requirement. You have certainly raised an interesting point however and I shall keep a watch for critical information in the future.

histocompatibility genes

Sincerely yours,

G. D. Snell

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GDS:mlh